The use of N-arylhydrazine derivatives for combating pests in and on animals

Abstract

5 Use of compounds of formula I

$$\bigvee_{B=A}^{n} \bigvee_{N=Q}^{R} (I)$$

wherein Q is

(3)

$$N = \stackrel{NR^1R^2}{R^3}$$
, $N = \stackrel{X^1}{R^3}$, or $\stackrel{R^4}{N} = \stackrel{O}{R^3}$.

X¹ is chlorine, bromine, or fluorine;

R¹, R² are each independently H, alkyl, alkenyl, alkynyl, or cycloalkyl, alkylamino, dialkylamino, alkylcarbonylamino, alkylsulfonyl, or alkylsulfinyl, wherein the carbon atoms in these groups may be substituted, or

R1 and R2 may be taken together to form a ring represented by the structure

$$N \stackrel{(CHZ)_p}{\searrow} X'_r$$

p,m are 1, 2 or 3; X' is oxygen, sulfur, amino, alkylamino, phenylamino, or methylene; Z is alkyl or phenyl;

R³ is H, alkyl, alkenyl, alkynyl, cycloalkyl, wherein the carbon atoms in these groups may be substituted;

R, R⁴ are H or alkyl, alkoxycarbonyl, alkylaminocarbonyl, or dialkylaminocarbonyl,

wherein the carbon atoms in the these groups may be substituted;

A is C-R⁵ or N; B is C-R⁶ or N; W is C-R⁷ or N; with the proviso that one of A, B and W is other than N;

R⁵, R⁶, R⁷ are H, halogen, nitro, cyano, amino, mercapto, hydroxy, alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, alkylamino, dialkylamino, alkylthio, alkylsulfonyl, or alkyl-

sulfinyl, wherein the carbon atoms in these groups may be substituted, a 5- to 6membered aromatic ringsystem which may contain 1 to 4 heteroatoms selected from oxygen, sulfur and nitrogen and which may be substituted;

Y is hydrogen, halogen, cyano, nitro, amino, hydroxy, mercapto, alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, alkylamino, dialkylamino, alkylthio, alkylsulfonyl, or alkylsulfinyl,

30 wherein the carbon atoms in these groups may be substituted;

n is 0, 1, or 2;

for combating parasites in and on animals.